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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,701	07/19/2000	James Westcott Heater	0135/00315	1770

7590

05/29/2003

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EXAMINER

TUGBANG, ANTHONY D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 05/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/619,701

Applicant(s)

HEATER ET AL.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The applicants' amendment filed 3/12/03 (Paper No. 9) has been fully considered and made of record.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

3. This application contains Claims 1-4 drawn to an invention nonelected with traverse in Paper No. 6. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

4. Claims 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 11, the recitation of "adhesive coated component" (line 8) is unclear if this is referring to the previous recitation of "components" (line 3). How many groups of components are there?

Claim Rejections - 35 USC § 102

5. Claims 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lape 5,093,984.

Lape discloses the claimed method comprising: supporting first, second and third pressure cylinders 248 (in Figs. 10, 11) over components on a circuit board 12 along one of a first (X-axis) and second (Y-axis) axes, each of the pressure cylinders having a foot (pad portion 260) which extends under air pressure against the components; and supplying a source of pressurized air simultaneously to the pressure cylinders (shown in Fig. 18) whereby feet (pad portions 260) of the pressure cylinders extends simultaneously to apply a force against the components (see col. 11, lines 2+ and col. 14, lines 59+)

With respect to the limitations of “for a duration of time sufficient to bond an adhesive coated component to said circuit board” (last 2 lines of Claim 11), this recitation is interpreted as functional language and is not considered to be a positive recitation and the pressure cylinders 248 of Lape are capable of applying a force to an adhesive coated component.

Regarding Claim 12, the claimed “first and second axes” is read as the X-Y axes (see col. 9, lines 54+)

Regarding Claim 13, the claimed “positioning arms” is read as support shafts 206, 208.

Regarding Claims 14 and 15, the pressurized air is supplied at a “timed pulse” for a “fixed duration of time” and is regulated to the extent that the air moves the piston rod 250 (in Figs. 10 and 11) and piston 251 (see col. 11, lines 3-8).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11-15, alternatively, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lape in view of Harada 4,675,993.

If the applicants believe that the function of applying a force for a duration of time to bond an adhesive coated component is in fact, a positive recitation, then Harada teaches the conventional concept of applying a force, i.e. pressure, on an adhesive coated component to aid in mounting the component on a circuit board (see col. 4, lines 60-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Lape, by applying a force and an adhesive on a component for a duration of time, as taught by Harada, to positively aid in mounting and positioning of the component on the circuit board.

Response to Arguments

8. Applicant's arguments filed 3/12/03 (Paper No. 9) have been fully considered but have not been deemed to be found as persuasive.

In regards to the merits of Lape, the applicants contend that Lape does not teach applying air pressure simultaneously to the pressure cylinders and different axes.

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The examiner most respectfully traverses. First, note Lape's Figure 18, which diagrams a block labeled as "Air Pressure" and multiple blocks labeled as "Plant Heads". From this diagram, it is clear that the source of air pressure (Air Pressure block) is simultaneously applied to the air pressure cylinders (Plant Head blocks).

Secondly, the first and second axes are read as the X and Y axes defined by Lape. Whether the pressure cylinders move in different directions or not is not recited anywhere in the rejected claims and it appears that the applicants are arguing more specifically than that which is claimed. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The argument directed to the duration of time to bond an adhesive coated component to the circuit board is now considered to be moot in light of the new grounds of rejection above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

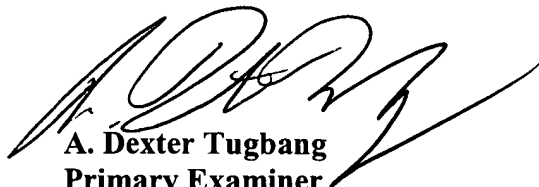
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dexter Tugbang whose telephone number is 703-308-7599. The examiner can normally be reached on Monday - Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3590 for regular communications and 703-305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

adt
May 23, 2003